

IN THE CLAIMS

1. (currently amended): A wafer grinder, comprising:

a base structure;

a housing module, ~~having including~~ a holding body, the housing module being [[and]]
fixedly positioned on the base structure of the wafer grinder;

a rotary worktable module, ~~having including~~ a worktable body and a spindle rotatably
positioned on the wafer grinder, wherein the rotary worktable module ~~has includes~~ a wafer
holding sub-module;

an air pressure ~~spindle~~ protection bearing module, positioned on the holding body and
~~having including~~ an air channel to direct an airflow with a certain pressure to the housing module
and the rotary worktable module to act as an air cushion spindle to support the worktable body
and the spindle; and

an adjustment module, positioned on the holding body and ~~having including~~ a
piezoelectric actuator and a displacement meter;

wherein a longitudinal rotation between the spindle and the worktable body ~~has includes~~
an air padding to offset a lateral force during a grinding process.

2. (currently amended): The wafer grinder as claimed in claim 1, wherein the holding
body ~~has includes~~ an auxiliary groove to facilitate machining base structure an airflow hose.

3. (currently amended): The wafer grinder as claimed in claim 1, wherein ~~a~~ the base
structure of the wafer grinder is a conventional civil structure for setting up a machine.

4. (currently amended): The wafer grinder as claimed in claim 2, wherein the wafer holding sub-module is positioned on the worktable body of the rotary worktable module and ~~has~~ includes a vacuum nozzle and a pump hose.

5.(original): The wafer grinder as claimed in claim 1, wherein the spindle is connected to the worktable body to rotate the worktable body.

6. (currently amended): The wafer grinder as claimed in claim 4, wherein the rotary worktable module further includes an adjustment sub-module positioned within the worktable body, and the adjustment sub-module includes an adjusting screw to block ~~longitudinally~~ radially the vacuum nozzle to adjust to wafers with different sizes.

7. (currently amended): The wafer grinder as claimed in claim 1, wherein the displacement meter and the piezoelectric actuator are placed in a same concentric geometrical position.

8. (currently amended): The wafer grinder as claimed in claim 7, wherein three ~~pairs~~ sets of piezoelectric actuator ~~and~~ with the displacement meter are positioned at a bottom of the worktable body by a ~~same~~ uniform angle separation to adjust a tilt angle of the worktable body.

9. (currently amended): The wafer grinder as claimed in claim 1, wherein the spindle is driven by a flexible, belt ~~like~~ like structure to prevent a shock of rotation from being transmitted to the spindle.

10. (currently amended): The wafer grinder as claimed in claim 9, wherein the spindle further includes a rubber coupling and a timing plate belt pulley so that the rubber coupling connects with the timing plate belt pulley and motor power is ~~delivered~~ transmitted by to input timing plate belt pulley.

11. (currently amended): The wafer grinder as claimed in claim 1, ~~wherein~~ further comprising the disc spring generates a pre-compressive force on the piezoelectric actuator.